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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/620,701 | 07/17/2003 | Yoshinobu Utsumi | Q76496 | 9300 |
| 23373 | 7590 | 12/29/2004 | EXAMINER | |
| SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037 | | | MOHANDESI, IRAJ A | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2834 | |

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

| | | |
|-----------------|-----------------|---------------|
| <i>AN</i> | Application No. | Applicant(s) |
| | 10/620,701 | UTSUMI ET AL. |
| Examiner | Art Unit | |
| Iraj A Mohandes | 2834 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 07 October 2004.
2a) This action is FINAL. 2b) This action is non-final.
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-13 is/are pending in the application.
4a) Of the above claim(s) 1-3, 12 and 13 is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 4-7 and 9 is/are rejected.
7) Claim(s) 8, 10 and 11 is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
10) The drawing(s) filed on 17 July 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 07/17/2003.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____.

DETAILED ACTION

1. Applicant's election without traverse of in the reply filed on 10/07/2004 is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 4,5,7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by **Yamada US patent 5,903,113**.

4. Regarding claims 4,5,7 and 9 **Yamada'113** discloses a method for positioning a rotational position sensor 78(column 9,lines 66,67) for a rotating electric machine, the rotational position, angle sensor (78) comprising; a stator (Fig.2); a rotor (32, 34, Fig 17) having a magnetic pole and a signal rotor (42) fixed to a rotation axis thereof; and a detection stator (43) disposed opposite to the signal rotor (34, Fig. 2), for detecting the rotational position of the rotor and detecting the rotor to be rotated by a predetermined angle or more; and adjusting the position of the detection stator or the signal rotor so that the detection stator may have a predetermined signal (see column 9,lines 66 and column 10 lines 1-5), further **Yamada'113** discloses a magnetic pole composed of a permanent magnet (35) fixed to a rotation axis thereof; and a detection signal rotor

stator disposed opposite to the signal rotor (see Fig. 2),a revolver (39 column 11, line 63).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over **Yamada US patent 5,903,113** and in view of **York US patent 6426,581**.

Yamada'113 teaches all limitation of claimed invention except the magnetic pole iron core is a claw pole.

York'581 discloses a rotational position sensor for a rotating electric machine, wherein the magnetic pole iron core is claw pole (see Fig.1, 2) for the purpose of increasing the magnetic flux.

Therefor it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine **Yamada'113** rotational position sensor for a rotating electric machine with the magnetic pole iron core, which is claw pole as taught by **York'581**for the purpose mentioned above.

Allowable Subject Matter

7. Claims 8,10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

9. Regarding claim 8, the prior art of the record in particular Yamada'113 does not reach or suggest a supporting structure for a method for positioning the rotational position sensor for the rotating electric machine including inter alia, the step of constraining the rotor from rotating by energizing the stator includes rotating the rotor by the predetermined angle by supplying a direct current to a predetermined phase of the stator coil and then a direct current to a different phase from the predetermined phase, and constraining the rotor from rotating.

10. Regarding claim 10, the prior art of the record in particular Yamada'113 does not reach or suggest a supporting structure for a method for positioning the rotational position sensor for the rotating electric machine including inter alia, a rotational position sensor is a revolver one phase excitation and two phase output, wherein the position of the detection stator or the signal rotor one of the output signals may be zero.

11. Regarding claim 11, the prior art of the record in particular Yamada'113 does not reach or suggest a supporting structure for a method for positioning the rotational

Art Unit: 2834

position sensor for the rotating electric machine including inter alia, the rotating electric machine has n pole pairs, and wherein the position of the detection stator or the signal rotor is adjusted so that the average value of n outputs from the detection stator may be zero, when the rotor is constrained stator n positions from rotating by energizing the stator.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Iraj A Mohandes whose telephone number is 571-272-2028. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KARL TAMAI
PRIMARY EXAMINER

IM December 27, 2004

